

SHS-3T2-HD

Strategically Hidden Loudspeaker System



Features

- 70.7V Operation with 0.5, 1, 2, & 4-Watt Taps
- 100V Operation with 1, 2, 4 & 8-Watt Taps
- 2.25" Full Range Speaker
- Blind Mounting Option
- Flange, Diffuser, and Lens Kits Included
- AtlasIED's Optional DesignLab™ Color Match Process Available
- Packaged and Sold in Pairs
- Cat5e Connectivity to AtlasIED Z-Series Acoustical Systems
- UL1480A

Applications

Modern designers and architects balance form and function. Loudspeaker aesthetics and minimal visual intrusiveness are just as important as high quality, high fidelity, and high intelligibility. AtlasIED's SHS-3T2-HD Strategically Hidden Loudspeaker, offers a compact design that can blend into any environment where a blind mount application is needed, while still delivering exceptional sound quality. The SHS can be deployed in paging, background music, or sound masking applications and in a number of configurations to suit the space.

General Description

Each SHS-3T2-HD includes a single full-range driver housed in an enclosure providing high-quality sound. The transducer is attached to the SHS's tunnel waveguide to take the sound performance to the next level. As the sound exits the waveguide, it travels through the patented adaptive dispersion lens that acts as a phase plug. The acoustic result is all frequencies are radiated evenly and annoying "hot spots" found directly below the speakers are minimized. This makes the SHS not only a great solution for sound and music reinforcement, but also a great sound masking speaker as well.

The SHS-3T2-HD is designed to blind mount into hard deck ceilings with a minimum clearance of 3.5" above the ceiling deck. The specially designed expansion ring locks the speaker in place. Once installed in the ceiling, the speaker is concealed using a patented 3" diameter dispersion lens with a micro trim ring. Once installed, the visual appearance is reduced to the size of a high-end ceiling sprinkler head. The SHS-3T2-HD can become a true chameleon through AtlasIED's DesignLab. AtlasIED offers custom color matching via UV printer that enables an integrator to submit an image or sample of the ceiling. Then, using a state-of-the-art print service, a custom lens and trim ring that matches the submitted sample will be shipped to the customer. For more information about the custom DesignLab process, visit www.atlasied.com/shs-cust.

The SHS-3T2-HD ships with the ability to utilize the Adaptive Dispersion Lens in three different configurations for various applications. Sound masking installations and installations with low ceilings (less than 10') should use the standard 4mm dispersion lens with solid lens cover attached. Installations with ceilings between 10' and 14' should use the standard 8mm dispersion lens with the solid lens cover attached. Installations with ceiling heights above 14' or in applications that require maximum intelligibility, the 4mm direct fire lens should be used with the direct fire grille attached.

The SHS-3T2-HD can be connected to any 70V / 100V amplifier using standard 2-conductor commercial speaker wire with the included removable 4-pole euro style connector. Additionally, when used with an AtlasIED Z-Series High-Definition Acoustical System the speakers can be connected using Cat5e cable. Each SHS-3T2-HD features "in" and "out" Cat5e terminals making it easy to daisy chain speakers to the Z-Series source unit.

System	
Type	2.25" Full Range
Operation Mode	Non-Powered Passive
Operating Range (-10db)	140 Hz to 20 kHz
Frequency Response (+/- 5dB)	180 Hz to 10 kHz
Vertical Coverage	130°, 2 kHz Octave Band
Horizontal Coverage	130°, 2 kHz Octave Band
Max Input Ratings (4 Ohms)	8W Continuous @ 100V
Transformer Taps - 70V	0.5W, 1W, 2W, 4W
Transformer Taps - 100V	1W, 2W, 4W, 8W
Directivity Factor (Q)	2.5 @ 2 kHz (4mm & 8mm Standard Lens and Lens Cover) 1.6 @ 2 kHz (Direct Fire Lens and Direct Fire Grille)
Directivity Factor (DI)	4 dB @ 2 kHz (4mm & 8mm Diffuser) 2.0 dB @ 2 kHz (Open Mesh Diffuser)
Nominal Input Sensitivity (1W @1m)	81.6 dB SPL
Max SPL at 1m (Passive)	90.6 dB
Peak SPL at 1m (Passive)	99.1 dB
Recommended Signal Processing	7 Band PEQ Correction
Recommended Power Amplification	8W @ 100 Volts / 4W @ 70 Volts
Transducers	
LF Transducer Qty and Size	1 Each 2.25" Full Range Driver
LF Voice Coil Size	1"
MF Transducer Qty and Size	N/A
MF Voice Coil Size	N/A
HF Transducer Qty and Size	N/A
HF Voice Coil Size	N/A
Nominal Impedance	8 Ohms
Minimum Impedance	6.9 Ohms
Crossover Frequency	N/A
Driver Protection	N/A
Mechanical	
Color	White (RAL9016)
Enclosure Material	ABS
Grille Material	ABS
Baffle Material	ABS
Mount Material	ABS
Input Connection	4 Pole Euro Block, RJ45
Controls	Switch
Mounting / Rigging Provisions	Included Safety Wire Kit
Safety Features	1 Safety Hang Point
Safety Agency Ratings	UL1480A
Ingress Protection	N/A
Environmental Testing	N/A
Cutout Diameter	2.75"
Minimum Ceiling Thickness for Installation	0.125"
Maximum Ceiling Thickness for Installation	0.75"
Logo	Atlas A Embossed in Enclosure
Product Dimensions (HxWxD)	6.5" x 2.77" x 4.05" (165mm x 70.4mm x 102.8mm)
Shipping Dimensions (HxWxD)	15" x 11.75" x 4.5" (381mm x 298.5mm x 114.3mm)
Net Weight	1 lb (0.45kg)
Shipping Weight	4.25 lbs (1.93kg)

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Warranty Coverage

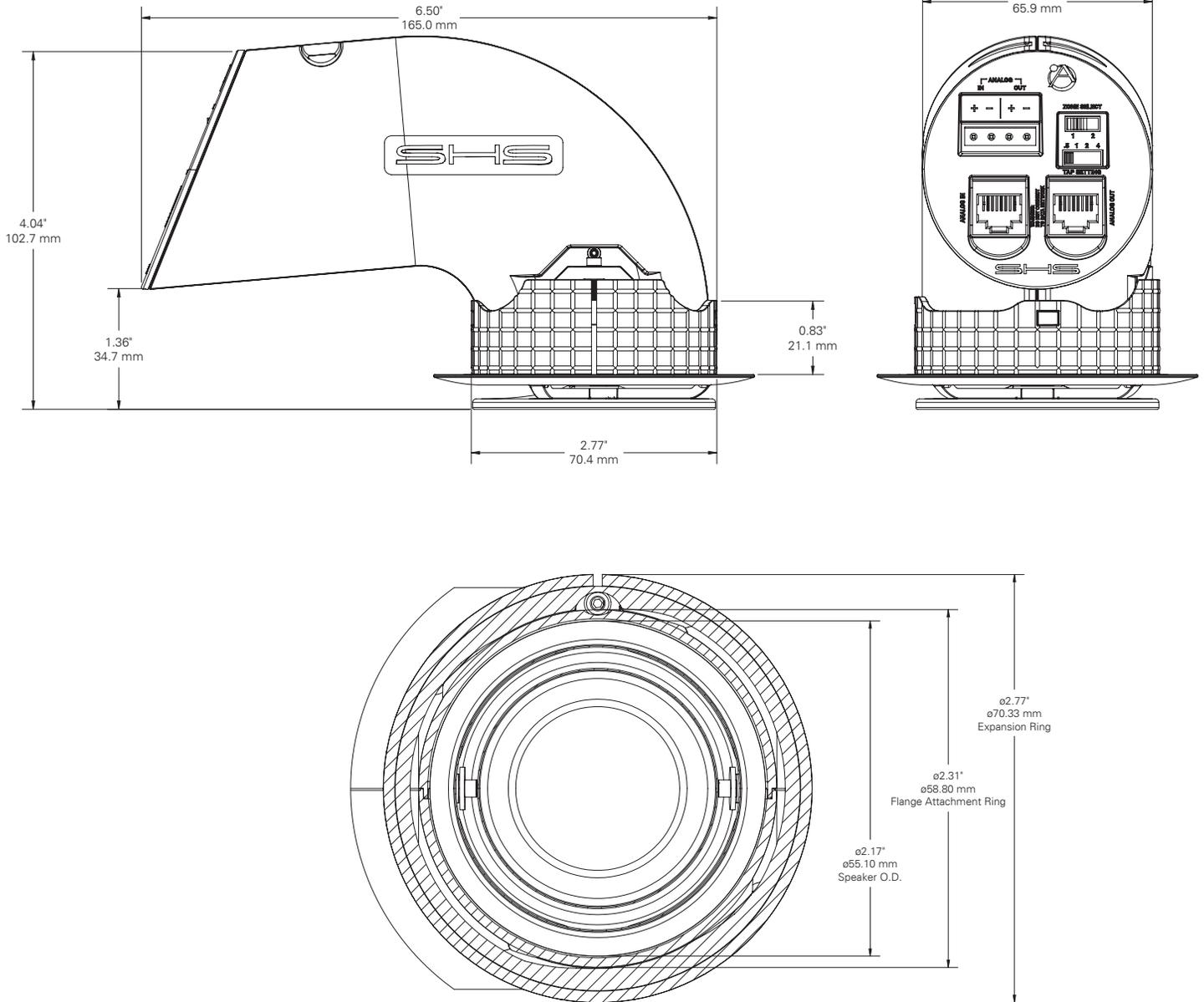
Warranty Period	5 Years
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NOTES:

1. Sensitivity: Half space, 1 meter, 2.83 volts RMS.
2. Power: All power figures are calculated using the rated nominal impedance.
3. Frequency response and sensitivity are half-space measurements.

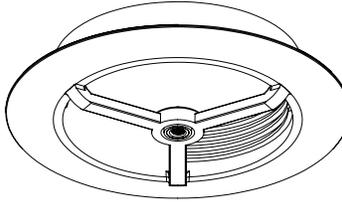
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Dimensional Drawings

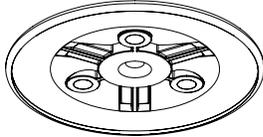


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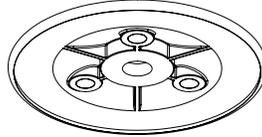
Included Accessories



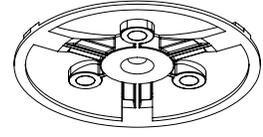
Flange



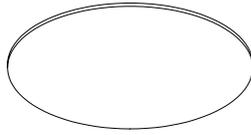
Standard Lens (4mm)



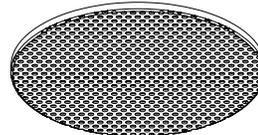
Standard Lens (8mm)



Direct Fire Lens (4mm)



Lens Cover

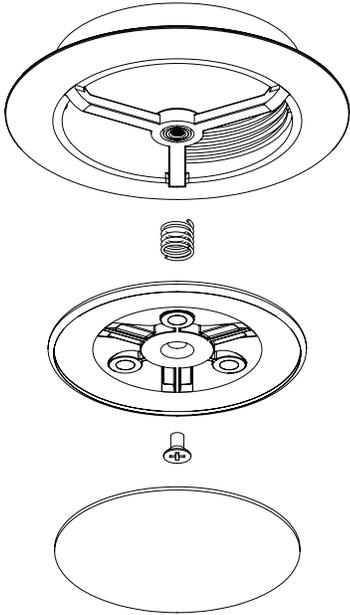


Direct Fire Grille

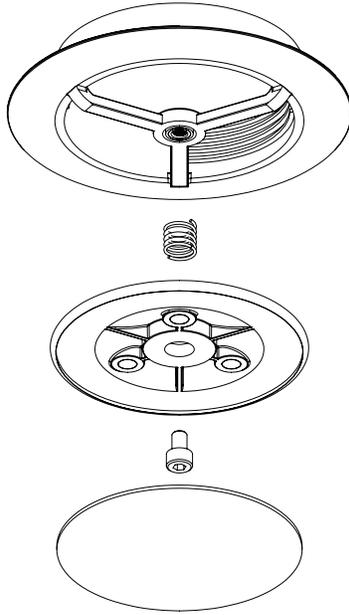
Additional Included Accessories

- 20' Cat5e Plenum Cable (2)
- Safety Wire Accessory Pack (2)
- Hardware

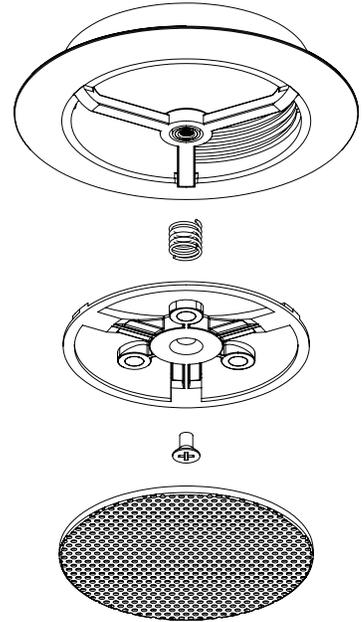
Installation Configurations



Standard Lens (4mm) with Solid Lens Cover
Ideal for Low Ceiling Installations (<10')
and Sound Masking Applications



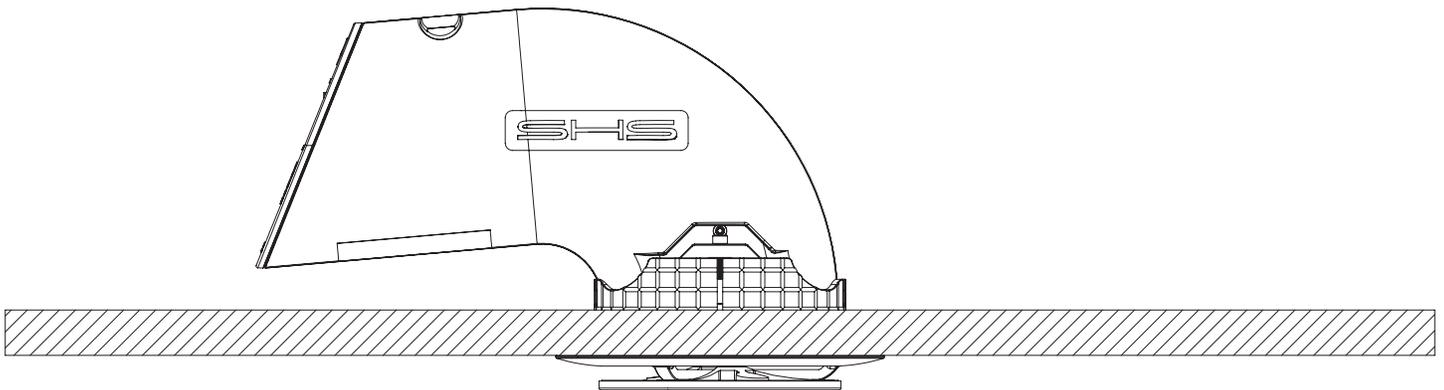
Standard Lens (8mm) with Solid Lens Cover
Ideal for Medium Ceiling Installations
(10' - 14')



Direct Fire Lens (4mm) with Direct Fire Grille
Ideal for Installations with High Ceilings (>14')
or Applications Where Extreme Intelligibility
is Required

Use the included spring to increase the diffuser open area.

Mounting



Architect & Engineer Specifications

The speaker system shall be AtlasIED SHS-3T2-HD. The passive, non-powered speaker system shall include a high performance full range driver inside a concealed enclosure providing high-quality sound. The sealed enclosure shall be tuned for bass performance while maintaining an installed visual presence similar to a sprinkler head. The transducer shall be attached to a tunnel waveguide and patented 3" adaptive dispersion lens that acts as a phase plug. The acoustic result shall produce frequencies evenly, significantly reducing hot spots directly below the loudspeaker.

Frequency response for the system shall be 180Hz – 10kHz. Sensitivity shall be 81.6dB average (1W @ 1m). Vertical and Horizontal Coverage shall be 130 degrees @ 2kHz Octave Band using the standard 4mm dispersion lens and solid lens cover attached.

Speaker shall be comprised of a single 2.25" full-range driver. The voice coil diameter shall be 1" (25mm). Transformer shall be a 70.7V/100V type with 0.5, 1, 2, and 4 watt primary taps (@ 70.7V) with a selector switch. Unit shall also include terminals for connection of Cat5e wiring for use with source units capable of transmitting analog audio signal via Cat5e cable.

External wiring shall be accomplished via a removable lockable wiring connector with screw-down terminals to provide both secure wire termination and pre-wiring capability before speaker installation. The 4-pole locking connector shall facilitate in/out connections and shall be located on the rear of the unit's enclosure.

For safety, the assembly shall have one hang point. Installation shall require a 2.75" cutout in the ceiling to accommodate the installation of the SHS-3T2-HD through the hole and then the flange and adaptive lens is screwed into place on the front of the ceiling. The speaker shall be safety listed to UL1480A

The speaker shall be the AtlasIED SHS-3T2-HD.